US009638518B2

(12) **United States Patent**
Marocchini et al.

(10) **Patent No.: US 9,638,518 B2**
(45) **Date of Patent: May 2, 2017**

(54) **POSITION SENSING DEVICE WITH ROTARY TO LINEAR MAGNIFICATION**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 314 days.

(21) Appl. No.: **14/504,547**

(22) Filed: **Oct. 2, 2014**

(65) **Prior Publication Data**

US 2016/0097636 A1 Apr. 7, 2016

(51) **Int. Cl.**
G01M 15/00 (2006.01)
G01B 21/22 (2006.01)
G01M 15/14 (2006.01)

(52) **U.S. Cl.**
CPC ***G01B 21/22*** (2013.01); ***G01M 15/14*** (2013.01)

(58) **Field of Classification Search**
CPC G01B 21/22; G01M 15/14
See application file for complete search history.

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(57) **ABSTRACT**

A device and method for measuring the rotational position of a rotating feature, the device employing rotary to linear magnification. A connecting member is operatively connected to the rotating feature, the connecting member extending through one or more structural layers of an enclosure. An arm is operatively connected to the connecting member and located outside the enclosure. A target is arranged with respect to a position sensor, with the position sensor configured to measure the linear position of the target with respect to the position sensor. A cable is connected to the arm at an attachment point, the cable also being connected to the target. One or more pulleys are arranged to control the path of the cable between the attachment point on the arm and the target.

13 Claims, 4 Drawing Sheets